

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING AND COMPLIANCE DIVISION
WASTE MANAGEMENT SECTION
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TO: Prospective Applicants for a Soil Treatment Solid Waste Management System License

The enclosed checklist and application is for anyone wishing to apply for a solid waste management system license. Please number or label the attachments or enclosures you have included with your application form and note those which are included. Remember to return the checklist with your application.

The licensing of a solid waste management system is not a quick and easy process. Be prepared for this process to take as long as a year to work through the various stages involved. The Department will review the application to insure that it is complete. Unless all the needed enclosures are included, it is unlikely that your application for a license will be considered complete. If additional information is required, the Department will notify the applicant with a Request for More Information letter that will specify what additional information is required.

Within 15 days after receipt of the completed application, the Department shall notify in writing the local health officer in the county where the proposed solid waste management system will be located. Once the license review process has been completed, the Department will then prepare an Environmental Assessment (EA) pursuant to ARM 17.4.607. An EA is a written analysis of a proposed action to determine whether an Environmental Impact Statement (EIS) is required and to determine whether or not the action may have a significant impact on the human and natural environment. Next, a public notice will be prepared to notify the public of the required 30-day comment period on the application and the EA. It shall be circulated in the following manner: one copy to the applicant, and three copies to the public health officer along with instructions that they be posted at the nearest post office and two other public buildings serving the geographical area of the proposed system. At least one news release shall be prepared and sent by the Department to an area newspaper.

The Department is required to accept comments from the public for a period of 30 days following the public notice and the completion of the EA, this allows concerned parties the chance to comment on the proposed project. A public meeting or hearing may also be held during the public comment period in order to discuss the project with the public and get their comments. Comments received are reviewed and a final decision is made as to whether the project is to be licensed or denied, or additional information is required in order to respond to comments.

If the Department decides to grant a license, it would be sent to the county's health officer for validation. The health officer in the county where the proposed facility will be located must validate it. For this reason, it is important for the applicant to keep the local health authorities informed during the licensing process and to provide them copies of the application materials.

SOIL TREATMENT FACILITY CHECK LIST

Please number or label the attachments or enclosures that you have included with your application form and note those which are included below. (Note: Unless all the needed enclosures are included, it is unlikely that your application for a license will be considered complete.) **Please return this form with your application.**

- 1) Copy of lease or rental agreement. (if necessary, from item #I.5.)
- 2) Indication of insurance and statement regarding liability coverage. (from item #I.7.)
- 3) Map of city or county. (from item #I.8.(a))
- 4) Plan of facility. (from item #I.8.(b))
- 5) Soil profile & conductivity. (from items #I.10.(a) & (b))
- 6) Background soil character analysis. (from item #I.11.(a))
- 7) Design plans for treatment cells, de-watering cell, stockpile area. (from item #I.13.)
- 8) Design plans for run-on/run-off control. (from item #I.15.)
- 9) Topographic site map with facility outline. (from item #II.A.5.)
- 10) List of adjacent property owners. (from item #II.A.9.)
- 11) Geologic report. (from item #II.B.)
- 12) Hydrological report. (from item #II.C.)
- 13) Operation and maintenance plan. (from item #III.A.B.C.)
- 14) Closure plan. (from item #IV.)
- 15) Zoning sign-off. (from item #V.)

Signature of Applicant _____

Date of Completion _____

SOIL TREATMENT FACILITY APPLICATION

I. Provide the following information for the Proposed Facility:

1. Name of proposed facility:

Address of proposed facility:

Name of applicant:

Address of applicant:

Facility telephone:

Other telephone:

2. This application is for:

Landfarm treatment of petroleum contaminated soils from multiple sites,

Soil Heap treatment system using biopile or compost technology to
remediate contaminants,

Other (please specify)

3. Legal description of proposed location:

1/4 1/4 Section T R M. P. M., Montana

4. General description of facility location

5. If you are not the owner of the property, give name and address of the recorded owner holding title to the property and attach a copy of the lease or rental agreement.

Name:

Address:

6. Has this location previously been used as a soil treatment site? Yes () No ()

(a) If Yes, explain on a separate page and attach.

7. Provide name and address of insurer of facility and/or attach copy of your general liability Insurance policy. Provide a statement regarding the limits of the policy for sudden and non-sudden liability coverage.

SOIL TREATMENT FACILITY APPLICATION

Name of Insurer:

Address of Insurer:

I. A. Facility Evaluation

8. Attach and label the following:

- (a) Map of City or County showing the proposed location of the facility, adjacent residences and access roadways.
- (b) A scaled plan of proposed facility showing the type and adequacy of fences for access control, the location and dimensions of treatment cells or management areas, de-watering cell (if applicable), storage or stockpile area, berms, buildings, bridges, and on-site roadways. Plot and indicate all test pits, borings, auger or drill holes and sample location points.

9. Will bridges and roads support loaded vehicles? Yes () No ()

10. Attach site specific soil information on the proposed facility including:

- (a) A soil profile to a depth from 1 to 3 feet below the lowest point contaminated soils will be deposited (Below Treatment Zone, BTZ).

Was this determined by:

Soil Conservation Service (SCS) Soil Survey

Soil Scientist Site Visit

Other (Specify)

(b) The permeability or conductivity of the soils BTZ. Cm/sec

Was this determined by:

Laboratory Analysis (Lab)

Approximation from Soil Profile

Percolation Test

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11. Have background soil samples been taken at the proposed facility?

Yes () No ()

(a) If Yes, what analytical method(s) was used

The laboratory doing the work

Is a copy of the analytical results attached? Yes () No ()

(b) If No, when will the required sampling take place?

12. Attach design plans for treatment cells, storage area, and de-watering pit (if necessary).

Be specific as to each and include:

(a) Liner specifications

(b) Source materials

(c) Monitoring features

(d) Construction details

(e) Quality Assurance/Quality Control (QA/QC)

13. If the soils BTZ at the proposed treatment facility do not meet the State of Montana standard for vertical and lateral permeability of at least 1×10^{-5} cm/sec for a depth of 3 feet, it may be necessary to provide design specifications for synthetic treatment cell liners.

Is this included in your application? Yes () No ()

14. Attach information on the location and design of run-on/run-off controls.

II. Provide the following information regarding Site Characterization:

A. General Site Information.

1. Total acreage of proposed site:

2. Acreage useable for the soil treatment facility:

3. Are natural drainages found within the site? Yes () No ()

4. What is the slope of the land at the treatment site?

SOIL TREATMENT FACILITY APPLICATION

5. Provide a topographic map (enlarged to scale if necessary), complete with the boundaries of the site, and an outline of how the proposed facility lays on the land. If any portion of the site is located within a 100-year floodplain, show location of, indicate the location on the map.
6. Distance from public or private water supplies:
 - (a) Indicate locations of wells on Attachment II. A. 5.
7. Are there any springs located within one mile of the site? Yes () No ()
 - (a) If Yes, indicate the location on Attachment II. A. 5.
8. Describe adjacent use of land and attach a list of names and addresses of adjacent.

B. Geologic Information.

9. Provide information and references describing the regional geology surrounding the site and specific to the proposed facility if there is any regional structural faulting activity.
 - (a) What is the geologic age of the fault(s)?

C. Hydrologic Information.

10. Attach a regional and site specific hydrologic report that includes:
 - (a) Depth to ground water (include copies of any available well logs)
 - (b) Location and extent of any known aquifers
 - (c) Direction of ground water flow
 - (d) Known or suspected recharge areas
 - (e) Distance to surface water
 - (f) Water quality in the area of the proposed facility
11. If ground or surface water samples have been taken in the area of the proposed facility.

II. C. Continued:

Include a copy of the analytical result(s), and state by which method(s) of analysis were used.

If no samples were taken will the required sampling take place? Yes () No ()

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It may be necessary to plan a ground water monitoring system in order to license this solid waste management system. Usually the ground water monitoring plan will be prepared by a qualified consultant.

Have you included a monitoring plan for this proposed site? Yes () No ()

- III. Attach an Operation and Maintenance Plan* for the proposed facility that addresses all of the following items:

**Refer to "GENERAL GUIDELINES FOR THE OPERATION OF A SOIL TREATMENT FACILITY TO BIOREMEDIATE PETROLEUM CONTAMINATED SOILS FROM MULTIPLE SOURCE SITES, AND SUMP SOLIDS FROM VEHICLE SERVICE SHOPS AND CAR WASHES", and Administrative Rules of Montana (ARM) 17.50.510 and 17.50.511 for minimum operation and maintenance requirements.*

A. Soil Treatment Facility Operations.

- (a) Days and hours of operation.
- (b) Fencing and access control.
- (c) Equipment to be used at the STF.
- (d) Site supervision.
- (e) Soil storage or stockpile area.
- (f) Sludge de-watering.
- (g) Provisions for run-on/run-off control.
- (h) Will a Water Protection Bureau NPDES be required?
- (i) Methods for determining the soil character BTZ, and sampling frequency.
- (j) Methods to determine baseline conditions in the treatment zone, and any adjustments necessary to promote bacterial activity (i.e., available nutrients, pH, soil moisture, soil temperature, bacterial count,)
- (k) What will be the source of irrigation water for the treatment cell?
- (l) What is the projected maximum volume of contaminated soil to be under remediation at one time?
- (m) Provisions for litter control.
- (n) Have you prepared a Site Safety Plan?
- (o) Is there a contingency plan for unforeseen precipitation events, design failure, or fire?
- (p) Describe the estimated life of the facility and include the method used to calculate this figure.

B. Characterization of Waste Materials Before Remediation.

- (a) What type(s) of waste stream(s) will be accepted at the proposed facility?
- (b) What criteria will be used to evaluate the incoming waste stream(s)?
- (c) Will any special or unusual wastes (those that require special handling or present unique environmental concerns) be accepted at the landfarm?
- (d) Do you plan to accept household quantities of hazardous waste and/or hazardous wastes from conditionally exempt generators?

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- (e) What analytical methods (specific to each waste stream), or field screening equipment will be used to characterize the waste before it is accepted at the landfarm?*
- (f) Design a record keeping form to track the incoming waste.*
- (g) What sampling protocol will be used and adhered to for each waste stream during the life of the facility?*

C. Remediation Maintenance.

- (a) If sludge is accepted, how will they be de-watered before application to the treatment cells?*
- (b) Will materials be stored or stockpiled prior to treatment cell application?*
() Yes () No

If yes, for how long.

- (c) How will the treatment cells be segregated to accommodate different waste streams and remediation schedules?*
- (d) How will the contaminated materials be handled?*
- (e) At what depth will the contaminated soils be spread?*
- (f) What will be the timing and method of tilling or aerating for the different materials?*
- (g) How often will the treatment zone be tested for optimum operating conditions?*
- (h) What is the sampling plan for the below treatment zone area?*
- (i) What schedule will be used for analytical sampling of each type of material under remediation?*
- (j) What analytical method(s) will be used for sampling of the remediation materials?*
- (k) What will be the criteria for stopping treatment of the contaminated material(s)?*
- (l) What is the proposed end-use(s) of the remediated soils?*

IV. Attach a Closure Plan that addresses the following items:

- (a) Final cover material for the treatment site.*
- (b) Depth of final cover?*
- (c) Provide a plan of the reclaimed soil treatment facility showing final contours and elevations.*
- (d) Site revegetation.*
- (e) The ultimate use of the closed facility.*
- (f) Post-closure monitoring.*

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V. Zoning Sign-off:

I hereby certify that the site of the planned solid waste management system is in accordance with local government zoning and ordinances (to be signed by appropriate local government official having knowledge of local zoning ordinances).

Signature: _____ *Title:* _____

Representing: _____ *Date:* _____

I am the party responsible for operation of this proposed facility. I certify that the above described solid waste management system will be constructed and operated in accordance with the MSWMA, Sections 75-10-201 et seq., MCA, the rules adopted thereunder, and in accordance with any conditions which have or may be imposed in the license.

Signature: (to be signed by the applicant) _____

Name (please print or type): _____

Title: _____ *Date:* _____